

Title (en)

HIGH THERMAL EXPANSION COEFFICIENT CERAMIC SINTER AND A COMPOSITE BODY OF THE SAME AND METAL

Publication

EP 0225781 B1 19910918 (EN)

Application

EP 86309404 A 19861203

Priority

- JP 2012686 A 19860203
- JP 27326285 A 19851206

Abstract (en)

[origin: EP0225781A2] The ceramic sinter is composed of a metal oxide selected from Al_2O_3 , MgO , ZrO_2 , BaTiO_3 , GeO_2 , Fe_2O_3 , WO_3 , CaTiO_3 and MgFe_2O_4 , and 10-90 vol. % of metal fluoride which has an electronegativity difference of not less than 2.5 between fluorine and the metal element. The ceramic sinter has a thermal expansion coefficient which can be chosen between $10-20 \times 10^{-6}/^\circ\text{C}$ and is suitable for bonding with general use metals such as stainless steel to form a composite body of the ceramic sinter and the metal, without causing a substantial thermal stress at the junction thereof.

IPC 1-7

C04B 35/00; C04B 35/04; C04B 35/10; C04B 35/26; C04B 35/46; C04B 35/48; C04B 37/02

IPC 8 full level

C04B 35/00 (2006.01); **C04B 35/111** (2006.01); **C04B 35/468** (2006.01); **C04B 35/488** (2006.01); **C04B 35/553** (2006.01); **C04B 37/02** (2006.01)

CPC (source: EP KR US)

C04B 35/00 (2013.01 - KR); **C04B 35/111** (2013.01 - EP US); **C04B 35/4682** (2013.01 - EP US); **C04B 35/488** (2013.01 - EP US);
C04B 35/553 (2013.01 - EP US); **C04B 37/021** (2013.01 - EP US); **C04B 37/025** (2013.01 - EP US); **C04B 2235/6582** (2013.01 - EP US);
C04B 2237/06 (2013.01 - EP US); **C04B 2237/062** (2013.01 - EP US); **C04B 2237/064** (2013.01 - EP US); **C04B 2237/068** (2013.01 - EP US);
C04B 2237/34 (2013.01 - EP US); **C04B 2237/341** (2013.01 - EP US); **C04B 2237/343** (2013.01 - EP US); **C04B 2237/346** (2013.01 - EP US);
C04B 2237/348 (2013.01 - EP US); **C04B 2237/365** (2013.01 - EP US); **C04B 2237/368** (2013.01 - EP US); **C04B 2237/402** (2013.01 - EP US);
C04B 2237/405 (2013.01 - EP US); **C04B 2237/406** (2013.01 - EP US); **C04B 2237/407** (2013.01 - EP US); **C04B 2237/84** (2013.01 - EP US)

Cited by

AU2008240798B2; US5631986A; US10612121B2; WO9530915A3

Designated contracting state (EPC)

DE FR GB SE

DOCDB simple family (publication)

EP 0225781 A2 19870616; EP 0225781 A3 19880720; EP 0225781 B1 19910918; DE 3681566 D1 19911024; KR 870005932 A 19870708;
KR 890002695 B1 19890724; US 5043305 A 19910827

DOCDB simple family (application)

EP 86309404 A 19861203; DE 3681566 T 19861203; KR 860010319 A 19861203; US 93879686 A 19861208